THE OCULAR INDEX AND ITS APPLICATION TO THE TAXONOMY OF THE ALLECULIDAE (COLEOPTERA)

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The last work of a revisionary nature on the North American Alleculidae was a treatment of the genus *Pseudocistela* Crotch by Hopping (Canadian Ent. 1933:65 (12):281-286). After almost thirty years of neglect, studies have started anew on this interesting group of beetles. Both authors of the present paper are currently involved in studies that should lead to a better understanding of the North and Central American components of this family of insects.

In many of the earlier works on the Alleculidae a great amount of emphasis was placed on the distance separating the eyes. Successful use of the majority of the older keys depends upon correctly interpreting the eyes to be separated by a distance "greater than," "subequal to," or "less than" their own width. Such expressions of this character have long been known to be ambiguous and not at all dependable. It has been necessary to resort to this character again in current revisionary studies on this group, but an effort has been made to find a more precise means of expressing it. Both authors of this paper independently arrived at the same solution, and it was decided to express this character as the "Ocular Index," or, more simply, "OI."

The Ocular Index is calculated by measuring the minimum distance between the eyes (fig. 1, B), and dividing this value by the maximum dorsal width across the eyes (fig. 1, A). The quotient resulting from this division is then converted into an index by multiplying by 100, i.e.,

$$\frac{\text{Minimum Distance Between Eyes}}{\text{Maximum Dorsal Width Across Eyes}} \times 100 = \text{Ocular Index}$$

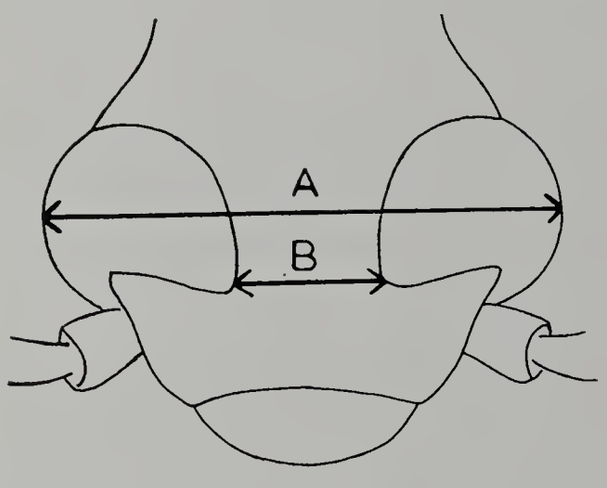

FIGURE 1. Ocular distances.

The use of this index (1) permits making a positive statement with regard to the distance separating the eyes, and (2) facilitates treating an important key character quantitatively. Thus far this character has been found to have general application in the family Alleculidae, and studies of a very preliminary nature indicate that it could likely be used effectively in the Lagriidae, the Tentyriinae of the Tenebrionidae, and probably in the Heteromera in general.

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